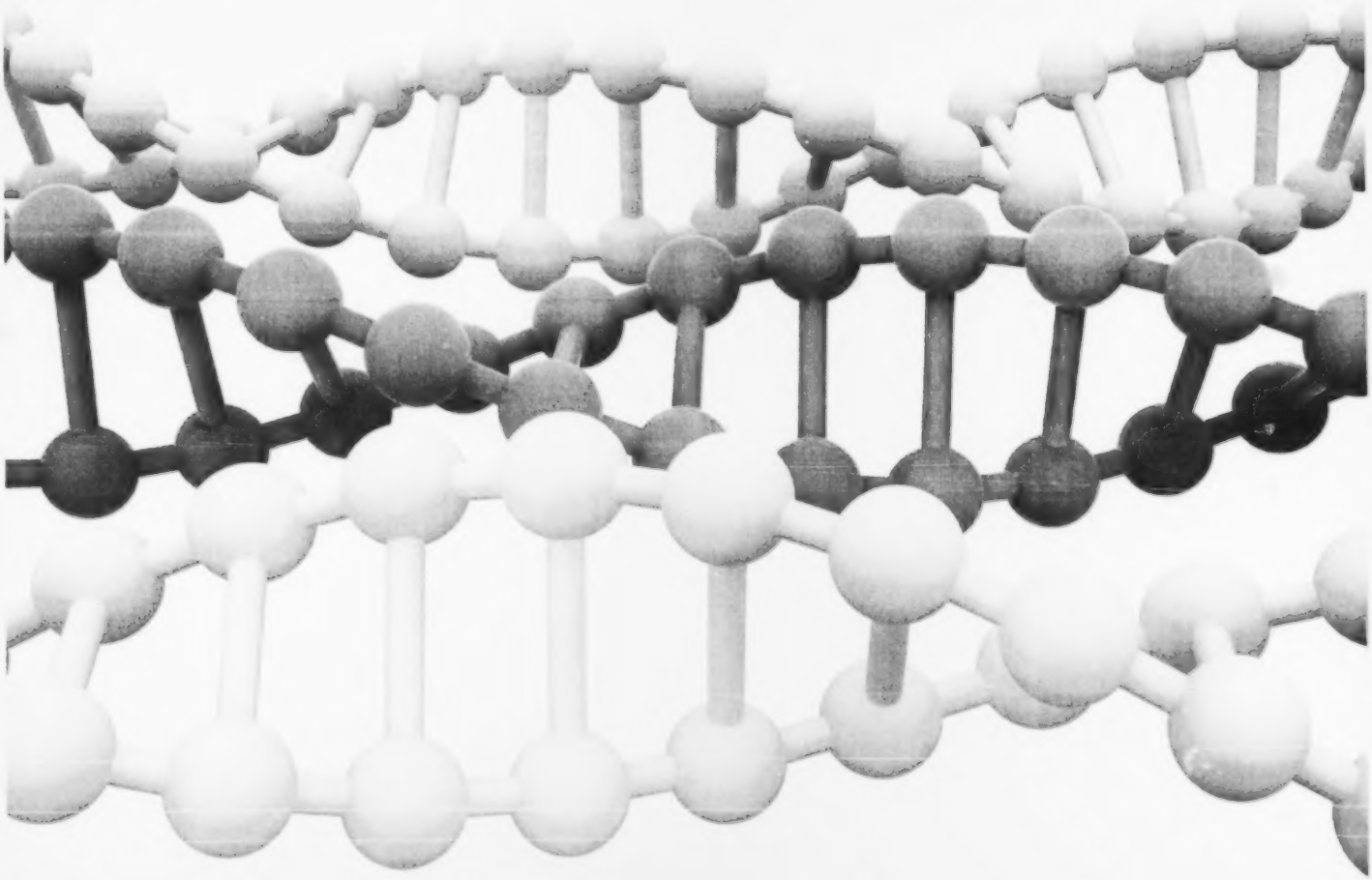
RCMP

ROYAL CANADIAN MOUNTED POLICE

The National DNA Data Bank of Canada

ANNUAL REPORT
2006 • 2007



Royal Canadian Mounted Police / Gendarmerie royale du Canada

Canada

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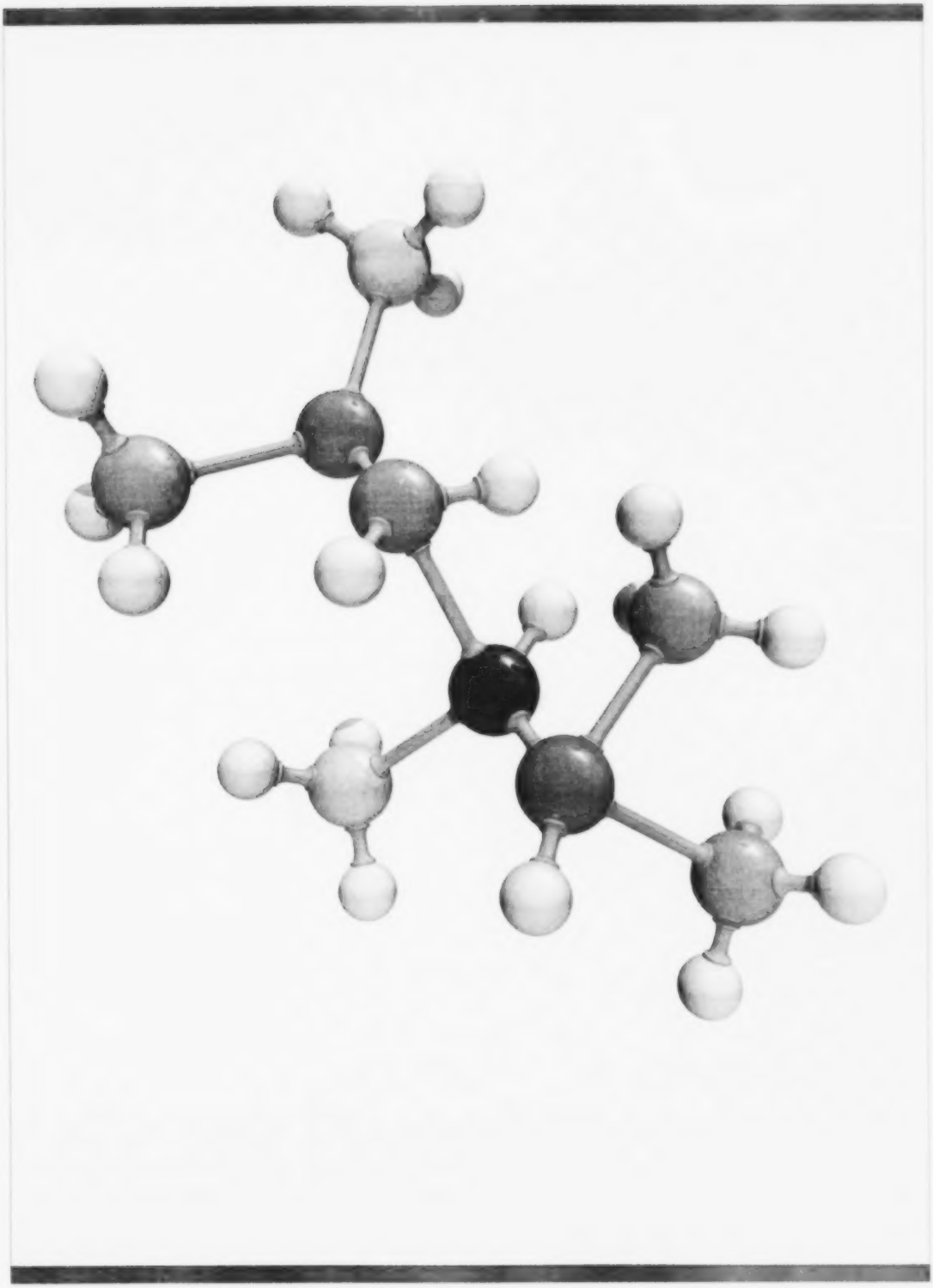
© Her Majesty the Queen in Right of Canada, 2007
ISBN 978-0-662-46762-5
Cat. no. PS61-4/2007E-PDF



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MESSAGE FROM THE MINISTER, PUBLIC SAFETY CANADA

Canada's New Government has made tackling crime a priority. We have shown that we are serious about this priority by taking action and giving the RCMP the tools and resources they need to fulfill their policing duties. That is why we have added 1,000 more RCMP personnel and federal prosecutors to focus on such law enforcement priorities as drugs, corruption and border security and invested in protecting children from sexual exploitation and trafficking. We know that the RCMP needs the right tools to fight crime, and the National DNA Data Bank (NDDB) is certainly one of the most effective tools police have at their disposal.

The NDDB may sound like something straight out of television and movies, but it is a proven and valuable program that repeatedly produces results. Rooted in legislation, bound by constitutional and privacy laws, and upholding the most rigorous of scientific methods and processes, the NDDB is a solid provider of scientifically valid information that helps to solve crime.

Canadians are aware of the NDDB through the many success stories we hear about in the media. I can assure you that these represent only a few of the 6,919 cases to which the NDDB has made a significant contribution over the past seven years.

These successes are not just about bringing criminals to justice, but also about protecting the innocent. "Hits" in the NDDB help police to focus their investigations in the right direction, and narrow the search for suspects who can be associated to the crime through DNA evidence. Amendments to the DNA Identification Act and the Criminal Code, coupled with an additional $15 million in funding for crime scene analysis, will significantly expand the reach of the NDDB and its assistance to law enforcement and the courts.

The Honourable Stockwell Day

MESSAGE FROM THE COMMISSIONER, ROYAL CANADIAN MOUNTED POLICE

As the steward of the NDDB, the RCMP ensures that it provides good value for government's investment, demonstrates management accountability and transparency, and maintains the most rigorous scientific quality assurance processes to secure the validity of results. Since the NDDB's inception in 2000, we have been telling Canadians that the NDDB produces expected results in a cost-effective way while protecting privacy and security.

The national scope of the NDDB enables access by all police agencies and the courts without consideration of jurisdiction, size or geography. Time and again, the NDDB's ability to link crimes across the span of time and distance has proven to be key in assisting investigations. Our agreement with Interpol allows the NDDB to extend its reach beyond our national borders to help solve crimes when offenders have fled the jurisdiction where the crime was committed. This is invaluable to law enforcement agencies as they collaborate to track the path of crime and suspects across borders.

So, how are we able to boldly proclaim that the NDDB is a success? Eight thousand hits in seven years have been achieved by 23 NDDB employees working hand-in-hand with police, forensic laboratories and the courts. The range of cases solved touches every aspect of violent crime, from robbery to sexual assault to murder. Alone, this is a great contribution to safe homes and communities. When the results provided by the NDDB are combined with other national systems like the National Sex Offender Registry, the effect is multiplied to provide even greater public safety and security.

The NDDB is not resting on its present success, and is actively engaged in identifying and assessing scientific and technological progress that could be utilized to further enhance its operations. The NDDB's influence on solving crime will increase dramatically with the anticipated changes to the *Criminal Code* and *DNA Identification Act*. Despite the significant increase in demands this will bring, the strong foundation laid in the first seven years of operation will enable the NDDB to continue the exceptional service that keeps communities safe and ensures that justice is served.

It is my privilege to present this report on behalf of the RCMP.

William J.S. Elliott, Commissioner

PEOPLE, PARTNERS, PROGRESS

The People

In June, 2000 a group of highly trained scientists and technicians waited with anticipation in the new National DNA Data Bank analytical laboratory. They were ready to receive the first biological samples from convicted offenders and convert them into DNA profiles. They were also waiting to enter those profiles into a highly sophisticated database that routinely searches each new entry against others in the database, anticipating the first match. It didn't take long—on October 13, 2000 the first hit was made, matching a convicted offender to a crime scene.

After that, things snowballed. Where a total of 25 hits were made in the first year, the NDDB now makes, on average, six hits per day between profiles from the crime scene index and the crime scene and convicted offender indices.

The Partners

The NDDB's early and ongoing success involves more than the efforts of NDDB employees however. It represents partnerships built on a commitment to safety—police agencies, forensic laboratories, and the judiciary, each playing their role in support of a national effort that helps solve crime and protect the innocent.

Police collect crime scene evidence which potentially contains critical DNA information. This evidence is submitted to one of the three Canadian forensic laboratory systems; The RCMP Forensic Science and Identification Services, Centre of Forensic Sciences in Toronto, or the Laboratoire de sciences judiciaires et de médecine légale in Montréal, where it is analyzed to create DNA profiles. The forensic laboratories enter these profiles into the NDDB Crime Scene Index. Further, the NDDB and the forensic laboratories work collaboratively to maintain standards that enable the crime scene DNA profiles developed by the forensic laboratory systems to be compared against the convicted offender DNA profiles prepared by the NDDB.

The court orders offenders convicted of designated offences to submit a biological sample for entry into the NDDB. Police collect the sample and send it to the NDDB where it is developed into DNA profiles and entered into the Convicted Offender Index.

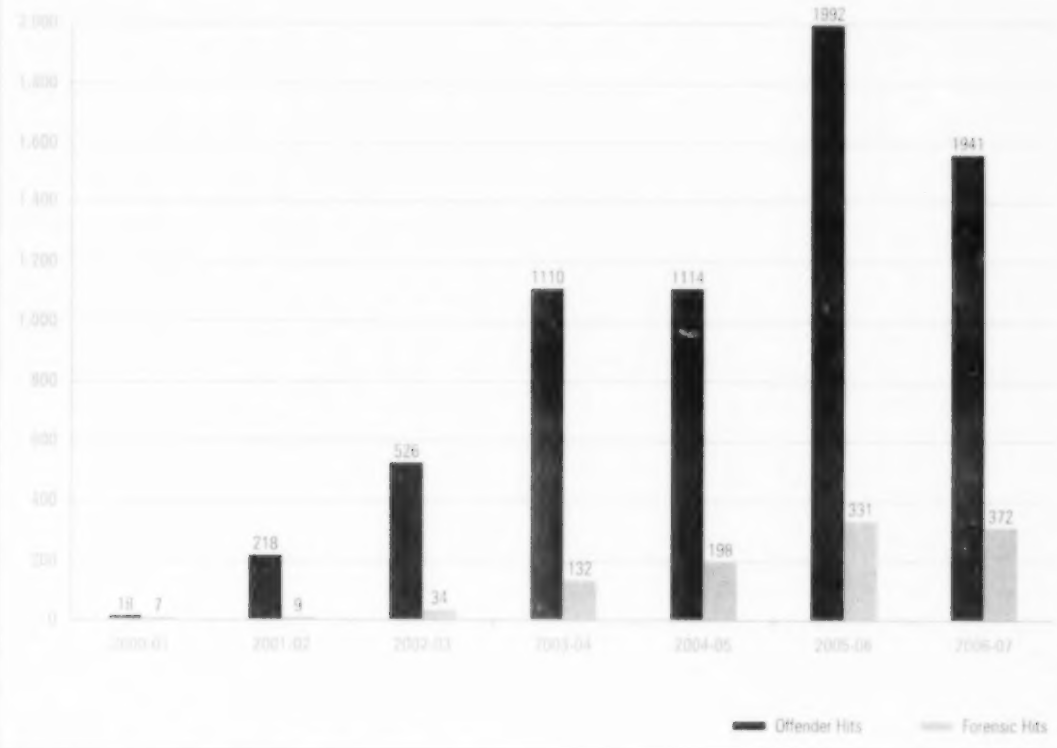
DNA Coordinators are members of police agencies who provide assistance to police officers with the training and collection of convicted offender samples.

The Progress

In its first year the NDDB reported 25 hits, but the number of hits has skyrocketed to a total of 8,002 hits as of March 31, 2007. One of the key enablers of this success is the application of highly sophisticated science using robotic technology that supports timely DNA processing.

The NDDB ensures that its scientific methods and processes are the most current and reliable methods available. Its scientists are integrally involved in the international forensic science community, and participate in that community's evaluation of new technologies that may enhance the specificity or timeliness of DNA analysis.

Offender and Forensic Hits



Data obtained from previous annual reports

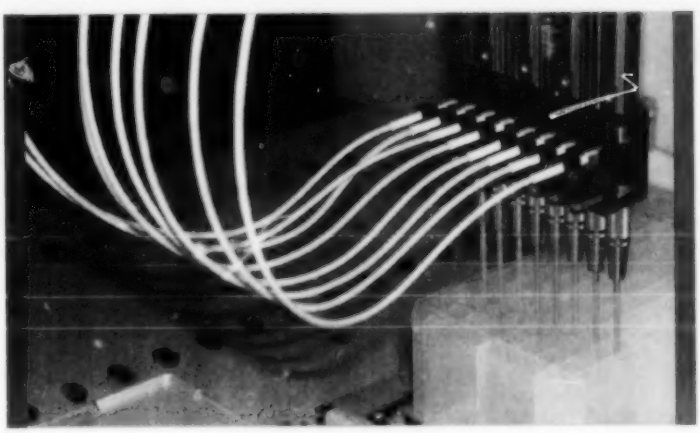
Scientific Progress

The analytical methods used by the NDDB must be valid and consistent among the forensic science community. However, new techniques are always being developed, and the NDDB must continually review any new methods which may be the next wave in DNA analysis. For example, a new development currently being explored might allow the analysis of smaller samples of DNA which could be useful for the processing of degraded biological samples. Technologies such as this will no doubt have the potential to play important roles in police investigations, and the NDDB must continue to determine whether these should be considered for implementation.

The NDDB proactively evaluates new methods and balances scientific enhancement with practical considerations such as; benefits over current methods, training, impact on information sharing, and whether comparison with existing DNA profiles is possible. This is particularly critical given the many NDDB hits that have associated crimes and convicted offenders across broad periods of time.

As different forensic laboratory systems may choose to adopt different scientific methods and technologies at different times, the NDDB plays a significant role in validating the scientific methods and ensuring technology compatibility so that the integrity and usefulness of the data in the NDDB is maintained.

Ultimately, the NDDB makes operational decisions based on whether it is consistent with its legislated mandate, and if the science will ensure quality results.



Legislative Progress

In the past few years, the value of information sharing has gained greater currency among law enforcement and criminal justice communities, and with governments, nationally and internationally. Nationally, the NDDB maintains ongoing dialogue with partners and the Government to identify further opportunities to leverage the NDDB, and to support a collective understanding of any scientific, political or legislative changes that impact its effectiveness.

When sentencing sexual offenders, many judges are connecting the dots by ordering offenders to not only submit a biological sample to the NDDB, which will link the offender to any sexual offence crime scene where they may leave their DNA, but also to register with the National Sex Offender Registry, which will assist police in locating the offender once a link to a sexual offence crime is made.

The interdependence between the NDDB and its partners means that legislative changes impact everyone. Should the proposed Bill C-13 (*An Act to Amend the DNA Identification Act and the Criminal Code*) and the subsequent Bill C-18 (*An Act to amend certain Acts in relation to DNA identification*) be passed, it would mean that, among other changes, some offences which were formerly secondary offences will become primary offences. The impact is significant—the number of primary offences will increase dramatically, and all *Criminal Code* and almost all *Controlled Drugs and Substances Act* indictable offences with a maximum sentence of five years or more of imprisonment will become secondary offences. This means that more biological crime scene evidence and more convicted offender samples will qualify for entry into the Crime Scene Index and Convicted Offender Index. This will result in additional orders from the courts, require more police time to collect biological samples from convicted offenders, more police trained in sample collection techniques, and additional crime scene analysis by the forensic laboratories, not to mention the analytical and database management impact on the NDDB.

To best serve Canadians, the NDDB must continue to evaluate the impact that the legislation may have on its operations and determine what additional resources or special requirements may be needed to meet the increased demands for services, and the intent of Parliament.

Information Sharing Progress

Information sharing extends to the international law enforcement community, where Interpol plays a central role in dialogue on the exchange of information between DNA data banks. Partner commitment, and acknowledgement of the common impact of borderless crime for all countries, will be key to resolving the challenges posed by differing jurisdictional constraints. The NDDB is actively involved in these discussions and is committed to preserving the integrity of data and privacy, while supporting the principle of information sharing.

Expertise and Advice

Many stakeholders have come to rely on the NDDB for its scientific expertise and advice for initiatives such as a proposed Missing Person Index. As part of the National Police Service's commitment, the NDDB is involved in developing the process mapping exercise for a Missing Person Index, as well as the many law enforcement and humanitarian considerations which this could bring. Beyond its excellence in DNA analytical services and management of a national database, the NDDB is also sought after for its excellence in privacy protection and assistance in mass disaster investigations.

The Future

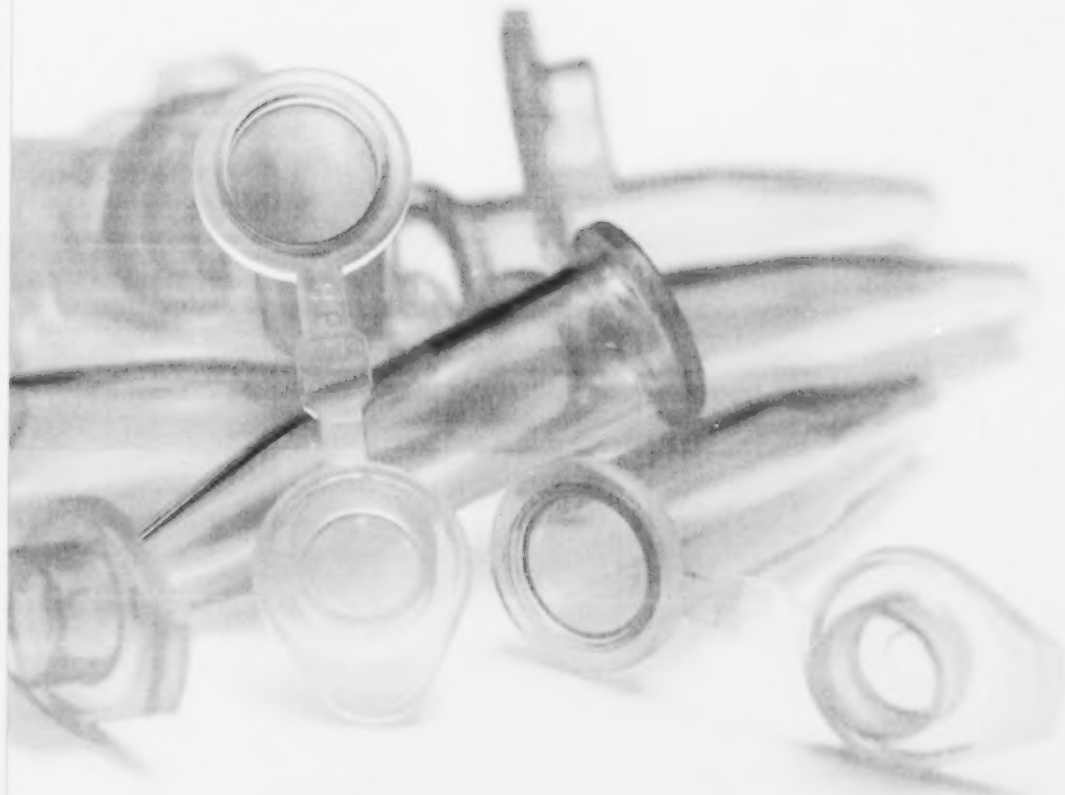
Given the rapid evolution of science and technology and the changing legislative environment, the NDDB is not resting on its current success. It is planning for changes that will maintain its value as an investigational tool. Any decisions about new methods and processes will be rooted in the best interests of its stakeholders and will demonstrate best value for Government's investment. The NDDB will fully participate in the Parliamentary Review of the NDDB, which will evaluate the effectiveness and efficiency of the NDDB.

The NDDB will support its leading edge scientific methods by attracting and retaining the most qualified scientists and analysts to support its mandate. It will also continue to share its expertise by providing training to partners and by participating in scientific and information-sharing dialogue and initiatives.

The heart of the NDDB rests in legislation and in Government's confidence in a national database in support of Canadian law enforcement. The NDDB is committed to maintaining this confidence and accountability.

The application of the science of identification through **DNA** *is undoubtedly the most significant aid to police investigations to date. It is the most positive identifier of victims and suspects alike. Our greatest challenge will be in sustaining and exploiting its full potential.*

Chief Derek Egan, Saanich Police Department, Chair Canadian Association of Chiefs of Police National Police Services Committee



HARNESSING THE POWER OF DNA ANALYSIS

DNA analysis was first used by the RCMP in 1989 in an investigation in which a suspect denied any involvement in a sexual assault, but the victim identified him as the attacker. DNA analysis later confirmed the victim's story. After the DNA test results were presented in court, the suspect changed his plea to guilty.

At this early stage, there was no central coordination at the national level that could help police take full advantage of the unfolding advances in DNA technology. In 1995, the Canadian *Criminal Code* was amended to add DNA warrant provisions. Under these provisions, a provincial court judge may authorize the collection of a DNA sample from a suspect for the purpose of forensic DNA analysis in the course of the police investigation of a designated *Criminal Code* offence.

In order for this new tool to be used to its full potential, there was a need to coordinate DNA profiling data from investigations across the country. With support from all levels of government, the general public and police agencies throughout Canada, decisive steps were taken to create the National DNA Data Bank.

In 1996, the Department of the Solicitor General (as it was then known) and the Department of Justice undertook Canada-wide consultations regarding the establishment of a National DNA Data Bank. The following groups participated in these consultations:

- Provinces and territories
- Police associations
- Privacy officials
- Bar associations
- Victim advocates
- Women's groups
- Correctional officials
- Medical and scientific organizations

Confirming the Government of Canada's commitment to combat crime and especially violent crime, Bill C-3, the *DNA Identification Act* (S.C. 1998 c.37) received Royal Assent on December 10, 1998 and was proclaimed in force on June 30, 2000.

That same year, Parliament enacted Bill S-10, an Act to amend the *National Defence Act*, the *DNA Identification Act* and the *Criminal Code* (S.C. 2000, c.10). The RCMP then built the National DNA Data Bank after Bill C-3 received Royal Assent. The project was completed on time and under budget.

HISTORY OF DNA LEGISLATION IN CANADA

1989	First RCMP DNA case.
1995 July	Bill C-104 receives Royal Assent. The Bill amends the *Criminal Code* and the *Young Offenders Act* to enable a judge to issue a warrant allowing police to obtain DNA evidence from suspects in a criminal investigation. This is Phase I of the Government of Canada's DNA Strategy, which provided the legislative framework for the use of DNA evidence in criminal proceedings.
1995 August	The Canadian Association of Chiefs of Police (CACP) joins hundreds of other organizations across the country in urging the government to create a National DNA Data Bank.
1996 January	Phase II of the Government of Canada's DNA Strategy begins with nation-wide consultations for the establishment of a National DNA Data Bank.
1997 April	Bill C-104 is tabled in the House of Commons. The Bill was to enable creation of a National DNA Data Bank. The Bill is referred to the Standing Committee on Justice and Human Rights before Second Reading, but dies on the Order Paper when an election is called in June.
1997 September	Bill C-104 is re-introduced in the House of Commons under the number C-3.
1998 December	Bill C-3 receives Royal Assent. Work begins with an aggressive 18 month schedule to establish the National DNA Data Bank.
1999 November	Bill S-10 is tabled in the House of Commons. Based on Senate recommendations, the Bill contains amendments to Bill C-3 including: the taking of fingerprints for identification purposes, the inclusion of offenders convicted of designated offences in the military justice system, and a full legislative review after five years to be conducted by the Senate and the House of Commons.
2000 June	June 30, Royal Assent to Bill S-10 and proclamation of Bills C-3 and S-10. DNA sample collections commenced immediately following proclamation.
2005 May	Royal Assent to Bill C-13. Amendments expand the retroactive scheme, clarify National DNA Data Bank profile sharing procedures with Canadian forensic laboratories, and establish procedures to confirm the validity of National DNA Data Bank orders. Other provisions of the Bill will come into force on proclamation.

THE NATIONAL DNA DATA BANK (NDDB)

The RCMP, through its National Police Services, is the steward of the NDDB on behalf of the Government of Canada and operates the NDDB for the benefit of the entire law enforcement community.

The NDDB assists law enforcement agencies in solving crime by:

- linking crimes where there are no suspects,
- helping to identify or eliminate suspects where there is no match between crime scene DNA and profiles in the NDDB, and
- determining if there is a serial offender.

The NDDB improves the administration of justice by assisting in the identification of those who commit serious crimes, and by focusing investigations to eliminate suspects. Robotic technology, coupled with a sophisticated Sample Tracking and Control System™ (STaCS™), allows NDDB analysts to rapidly process samples in a cost effective way, while ensuring overall data security and providing quality control throughout the DNA analytical process.

The NDDB strictly adheres to the privacy principles contained within the *DNA Identification Act* while balancing the need for police officers to identify suspects. Stringent procedures governing the handling of biological samples and resulting DNA profiles ensure that the privacy rights of individuals are protected.

Information collected by the NDDB is used solely for law enforcement purposes; in fact the DNA profiles are considered anonymous pieces of DNA and, apart from gender, do not specify any medical or physical information about the donor.

In 2006/2007 the NDDB and its legal partners added 17,950 entries to the Convicted Offender Index. Biological samples are collected from convicted offenders by trained police officers, processed by the NDDB, and the resulting DNA profiles are entered into the Convicted Offender Index.

The NDDB is also the custodian of the Crime Scene Index (CSI), a separate electronic database of DNA profiles from crime scene evidence analyzed and uploaded into the NDDB by the three Canadian forensic laboratory systems. The NDDB received 6,320 new submissions to the CSI in 2006/2007.

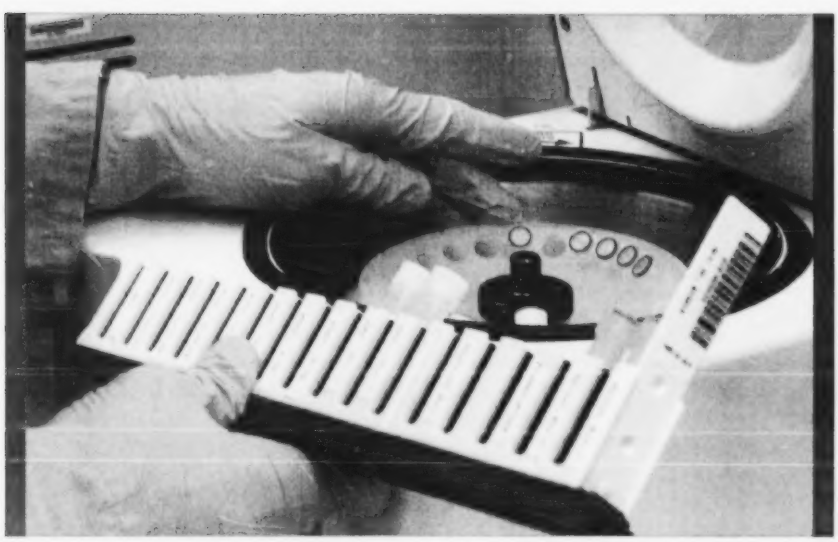
The NDDB's three forensic laboratory partners in Canada are:

- the RCMP Forensic Science and Identification Services (with sites in Halifax, Ottawa, Winnipeg, Regina, Edmonton and Vancouver),
- the Centre of Forensic Sciences in Toronto, and
- Laboratoire de sciences judiciaires et de médecine légale in Montréal.

Possible matches are identified in one of two ways:

- New DNA profiles entered in the CSI are compared against DNA profiles from other crime scenes. These matches associate different crimes to each other, which helps investigators to look for other commonalities that may assist with solving the crimes.
- Comparison of new crime scene or convicted offender entries to associate an offender with a particular crime.

In 2006/2007, the NDDB identified 372 crime scene to crime scene matches, and 1,941 crime scene to convicted offender matches, bringing the total hits for this fiscal year to 2,313.



THE WORKING SCIENCE

The National DNA Data Bank (NDDB) is comprised of two indices; the Convicted Offender Index and the Crime Scene Index.

The Convicted Offender Index

The Convicted Offender Index is the electronic DNA profile database developed from biological samples collected from:

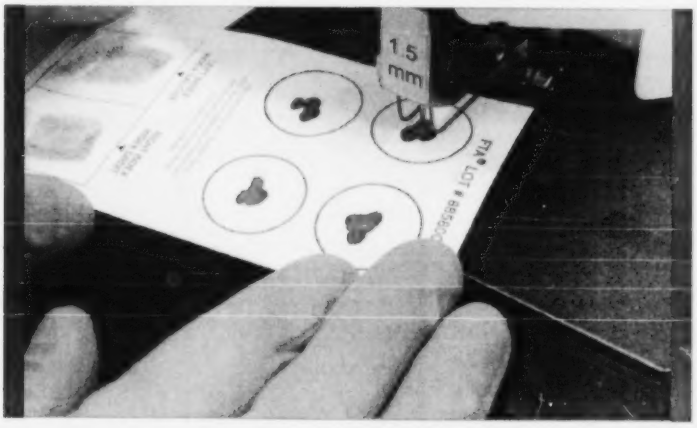
1. Offenders convicted of designated primary and secondary offences (see Appendices A and B) identified in section 487.04 of Canada's *Criminal Code*, and
2. Offenders who meet the retroactivity criteria in section 487.055 of the *Criminal Code*. In general terms, this applies to those convicted of certain serious offences who were already serving a sentence of at least two years, or who had been declared a dangerous offender before June 30, 2000 when the *DNA Identification Act* was proclaimed. (See Key Statistics explanatory notes on page 22 for a complete description of retroactive provisions)

Biological samples from convicted offenders are collected by police who have been specifically trained to do so. These biological samples include:

i. **Blood:** The sample is obtained by using a sterile lancet to prick the fingertip and then collecting bloodstains on a specially prepared sample card.

ii. **Buccal:** The inside of the mouth is rubbed with a foam applicator to obtain skin cells that are then transferred to the sample card.

iii. **Hair:** 6-8 hairs are pulled out with the root sheath attached which are then placed on a special sample card.



The convicted offender biological samples are collected and submitted to the NDDB to be processed into DNA profiles. These DNA profiles are loaded into the Combined DNA Index System (CODIS), a software package that stores and compares the profiles. CODIS was developed by the Federal Bureau of Investigation and the US Department of Justice and provided to the NDDB at no cost. The software is a universally accepted standard for forensic laboratories, which allows the NDDB to participate in the sharing of information consistent with signed international agreements.

The Crime Scene Index

The Crime Scene Index is a separate electronic database composed of DNA profiles obtained from crime scene investigations of the same designated offences as the Convicted Offender Index. The biological samples are collected at the crime scene by investigators and submitted to one of the three forensic laboratory systems (RCMP Forensic Science and Identification Services, Laboratoire de sciences judiciaires et de médecine légale, and the Centre of Forensic Sciences).

Information from the resulting DNA profiles is uploaded into the Crime Scene Index by the forensic laboratories. The NDDB retains this electronic information as well as basic details such as the date, location of the submitting laboratory and a unique number identifier that allows information to be compared by the submitting laboratory in the event of a future match.

Privacy of Information

It is important to understand that both crime scene and convicted offender samples are identified simply by a bar code number. In fact, the donor identity of a convicted offender is separated from the genetic information when the sample arrives at the NDDB. The bar code is the only link between personal information and the biological sample and DNA profile. The personal information is protected information that is not accessible by NDDB staff, and is kept in a separate registry by the RCMP's Canadian Criminal Real Time Identification Services (CCRTIS).

Canadian law makes it clear that the NDDB profiles can only be used for law enforcement purposes. The NDDB does not share the DNA profiles with anyone other than law enforcement agencies. The DNA profiles are the result of 13 special DNA markers that are tested to produce a DNA profile which is unique to each individual. These 13 regions of interest are considered anonymous, and other than gender, do not provide specific medical or physical information about the donor. The regions chosen by the NDDB are the same regions of genetic variation used throughout the United States and in many other countries conducting forensic DNA analysis.

PROCESS FOR REPORTING A MATCH

NDDB processes biological samples from convicted offenders and uploads the resulting DNA profiles into the Convicted Offender Index.

Forensic laboratories process biological samples left at crime scenes and upload the resulting DNA profiles into the Crime Scene Index of the NDDB.

NDDB runs search between the Crime Scene Index and the Convicted Offender Index.

Match between a convicted offender profile and a crime scene profile.

Barcode + Laboratory ID + CODIS identifier brought to Canadian Police Services Information Centre (CPSIC).

CPSIC forwards the convicted offender data to the forensic laboratory.

Forensic laboratory passes the convicted offender identity information to the investigator.

PROCESS FOR CONFIRMING A MATCH

Once the investigator has received the convicted offender's identity from the forensic laboratory, the following procedure is followed to confirm the match.

The investigator assesses the case evidence to determine if further investigation of the suspect is required.

If evidence of a match between the convicted offender and the crime scene profile is required for court purposes, the investigator must apply to a provincial court judge for a DNA warrant. If the warrant is ordered, a biological sample can be collected from the suspect under that authority.

The biological sample is submitted to a forensic laboratory for analysis. The laboratory compares the suspect's DNA profile to that of the crime scene evidence.

The forensic laboratory issues a report confirming a match between the suspect's DNA profile and that of the crime scene evidence.

Based on the laboratory report and other investigative information, the investigator can consider whether charges should be laid or recommended against the suspect.

NATIONAL DNA DATA BANK ADVISORY COMMITTEE

The NDDB Advisory Committee was created pursuant to the *DNA Data Bank Advisory Committee Regulations*, and advises the Commissioner of the RCMP on matters related to the operations of the NDDB. Members are appointed by the Minister, Public Safety Canada.

The Advisory Committee began meeting in January 2000 to support the establishment of the NDDB and has continued to provide relevant and strategic advice to the Commissioner of the RCMP since that time. The Committee is comprised of experts from policing, privacy, molecular biological sciences, genetics, medical ethics and the law.

Each member of this Advisory Committee has been privileged to support the **NDDB**. *It has been clear to us from its very inception that Dr. Ron Fourney was exactly the right person to get the* **NDDB** *underway and bring it to reality. It is only fitting that Dr. Fourney's contribution has been recognized with the conferring of Officer, Order of Merit of the Police Forces in 2006. We congratulate Ron on receiving this prestigious award.*

Chair Richard Bergman, on behalf of the Advisory Committee

The Order of Merit of the Police Forces is a fellowship of honour based on the highest qualities of citizenship, service to Canada, to the police community and to humanity at large.

Dr. Fourney was recognized for his contribution to the use of DNA typing in forensic science, and commitment to the effective establishment and operation of the National DNA Data Bank as a significant criminal investigative tool that helps to preserve justice and safety for Canadians.

National DNA Data Bank Advisory Committee Members

- **Dr. Frederick R. Bieber,** Canadian-born Associate Professor of Pathology in the Faculty of Medicine at Harvard University. Dr. Bieber is a medical geneticist and a specialist in bio-medical ethics.
- **Dr. George R. Carmody,** Vice Chairperson, Associate Professor of Biology at Carleton University. Dr. Carmody is a regular expert witness in DNA-related court cases in Canada.
- **The Honourable Peter Cory,** C.C., C.D., Q.C., retired Justice of the Supreme Court of Canada. The Honourable Peter Cory is currently working with the Federal Department of Justice and Osler ADR Centre.
- **Gisèle Côté-Harper,** O.C., Q.C., a graduate of Harvard Law School and currently a Barrister and a Professor at the Faculty of Law, Université Laval, specializing in Criminal Law and Human Rights.
- **Dr. William S. Davidson,** Professor of Molecular Biology and Biochemistry, Simon Fraser University (Burnaby, B.C.). Dr. Davidson has published widely in the areas of molecular evolution, population genetics, genomics and human genetics.
- **Raymond D'Aoust,** Assistant Commissioner, Office of the Privacy Commissioner of Canada.
- **Dr. Ron Fourney,** Director, National Services and Research, Forensic Science and Identification Services, RCMP

KEY STATISTICS | March 31, 2007

Table 1 Cases Assisted by the NDDB

Murder	420
Sexual Assault	952
Attempted Murder	167
Robbery (armed)	792
Breaking and Entering with Intent, Committing an Offence, or Breaking Out	3,994
Assault	465
Other	129
Total	**6,919**

Table 2 Match Inventory Report

Offender Hit—Crime Scene Index to Convicted Offender Index	6,919
Forensic Hit—Crime Scene Index to Crime Scene Index	1,083
Offender Duplicate (Two samples taken from the same person)	3,446
Identical DNA Profiles (from different individuals i.e. identical twins)	59

Explanatory Notes

Offender "Hit": A DNA profile developed from crime scene evidence and entered in the NDDB matches a DNA profile in the Convicted Offender Index.

Forensic "Hit": A DNA profile developed from crime scene evidence and entered in the Crime Scene Index of the NDDB matches another crime scene DNA profile in the Crime Scene Index.

Offender Duplicate: Cases where two biological samples from the same person were submitted to the NDDB.

Identical DNA Profiles: Profiles of identical twins.

Table 3 DNA Profiles Contained in the NDDB

Convicted Offender Index	110,930
Crime Scene Index	34,245
Total	145,175

Note: The NDDB receives 350-450 convicted offender samples per week.

Table 4 Breakdown of Profiles Contained in the Crime Scene

Centre of Forensic Sciences (Toronto)	13,743
Laboratoire de sciences judiciaires et de médecine légale (Montréal)	10,860
RCMP Forensic Science and Identification Services (Halifax, Ottawa, Winnipeg, Regina, Edmonton, Vancouver)	9,642
Total	**34,245**

Explanatory Notes

Convicted Offender Profile: A DNA profile from an offender convicted of a designated offence (see Appendix A for a list of primary designated offences and Appendix B for a list of secondary designated offences).

Crime Scene Profile: A DNA profile developed from biological evidence found at a crime scene.

Table 5 Breakdown of Convicted Offender Samples Received According to Category and Offence Type

Retroactive	2,916	Primary	62,076
Retrospective	52,372	Secondary	54,512
Prospective	62,396	Other	1,096
Total	117,684	Total	117,684

Explanatory Notes

The Convicted Offender Index is a post-conviction database composed of three categories of samples:

Retroactive: A biological sample taken from an offender who was found guilty of a designated *Criminal Code* offence before June 30, 2000 and who had been:

a. declared a dangerous offender under Part XXIV;
b. declared a dangerous offender or a dangerous sexual offender under Part XXI of the *Criminal Code*, being chapter C-34 of the Revised Statutes of Canada, 1970, as it read from time to time before January 1, 1988;
c. convicted of murder;
d. convicted of a sexual offence within the meaning of subsection (3) and, on the date of the application, is serving a sentence of imprisonment of at least two years for that offence; or
e. convicted of manslaughter and, on the date of the application, is serving a sentence of imprisonment of at least two years for that offence.

As of March 31, 2007, approximately 6,116 offenders qualified for inclusion in the retroactive category as defined by Bills C-3 and C-13. From this list of qualified offenders, 3,480 files were concluded with the remainder being prepared by the Attorneys General for court applications.

Retrospective: A biological sample collected from an offender who committed a designated offence before June 30, 2000 and was convicted after that date.

Prospective: A biological sample collected from an offender who committed, and was convicted of, a designated offence after June 30, 2000.

Primary Offences: See Appendix A

Secondary Offences: See Appendix B

Samples Received versus Profiles Contained in the Convicted Offender Index

As of March 31, 2007, the NDDB had received 117,684 biological samples, of which 110,930 DNA profiles were contained in the convicted offender index. The difference of 5.7% can be attributed to rejected samples, duplicate samples, biological samples in the process of being treated and profiles removed from the convicted offender index.

Table 6 Convicted Offender Samples Received by Province

Alberta	12,257	Nunavut	582
British Columbia	12,060	Ontario	52,612
Manitoba	6,489	Prince Edward Island	286
New-Brunswick	1,710	Quebec	20,424
Newfoundland & Labrador	1,785	Saskatchewan	5,429
Nova-Scotia	3,073	Yukon	226
North West Territories	772		

Note: The above information represents the convicted offender samples received and is not reflective of the number of convictions eligible for inclusion into the Convicted Offender Index.

Table 7 Type of Samples Received From Convicted Offenders

Blood	115,865	98.5%
Buccal	1,681	1.4%
Hair	138	0.1%
Total	117,684	

Table 8 Breakdown of Convicted Offender Samples Received

Young Offender	15,306
Adult Offender	102,342
Military Offender	36

Sample Rejections

The NDDB has rejected only 1.5% of the samples it has received to date. The reasons for rejection include: offender convicted of a non-designated offence, inadequate biological samples, use of inappropriate collection kit, no court order made, and others. Over 59% of the rejected samples are the result of submissions from offenders convicted of non-designated offences and are therefore not eligible for inclusion in the Convicted Offender Index.

These numbers for sample rejection do not include biological samples submitted without fingerprints. Typically, if an affidavit from the collection officer is provided at a later date, continuity is established and the sample can be accepted. Since June 30, 2000, the NDDB has received 710 biological samples that did not contain the fingerprint identification on the sample collection card or the fingerprint identification form.

Additional Samples

In some instances, samples had to be taken a second time, pursuant to subsection 487.091(1) of the Criminal Code, which provides for an application for resampling where a DNA profile can not be derived from the original sample. Since June 30, 2000, the NDDB has received 330 samples that were taken under this provision.

Table 9 Convicted Offender Index Breakdown By Offence

Homicide	3,542
Sexual Assault	21,735
Break and Enter/Robbery	34,812
Assault	72,150
Other	5,983

Note: More than one offence may be associated with a sample received.

Table 10 Breakdown of Biological Samples Destroyed and DNA Profiles Removed from the Convicted Offender Index

	Adult	Young Person
Absolute discharge	40	6
Conditional discharge	683	107
Conviction quashed on appeal	80	4
DNA order/authorization quashed	16	2
No suitable DNA profile obtained	17	3
Retention period expired	0	18

Explanatory Notes

Homicide includes manslaughter.

Sexual Assault includes rape, sexual intercourse with a female under 14 and between 14 and 16, sexual intercourse with the feeble-minded, sexual interference, invitation to sexual touching, sexual exploitation, incest, bestiality in the presence of or by a child, child pornography, indecent acts, offence in relation to juvenile prostitution, sexual assault with a weapon, and aggravated sexual assault.

Break and Enter/Robbery is limited to the two offences.

Assault includes assault with a weapon or causing bodily harm, aggravated assault, and assaulting a peace officer.

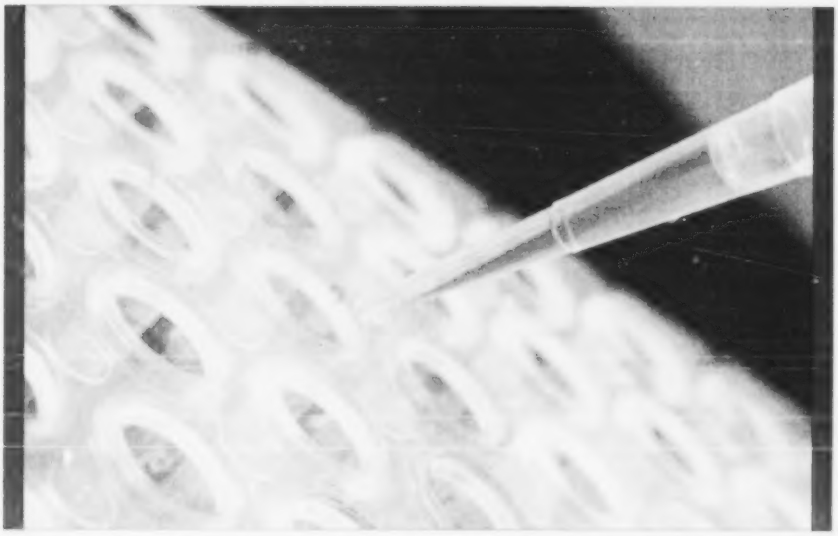
The **Other** category includes using explosives, causing death by criminal negligence, causing bodily harm by criminal negligence, causing bodily harm with intent, dangerous operation causing death, failure to stop at the scene of an accident, impaired driving causing death, unlawfully causing bodily harm, kidnapping, hostage taking, mischief causing danger to life, arson-disregard to human life, setting fire to other substance, arson—own property.

FINANCIAL STATEMENT

April 1, 2006 • March 31, 2007

Expenditure Type	Expenditure ($ thousands)
Personnel	1,448
Transport and Communications	73
Information	13
Development	37
Rentals	2
Repair and Maintenance	60
Utilities, Materials and Supplies	891
Capital and Minor Equipment Purchases	96
Miscellaneous	1
Total	**2,621**

The Financial Statement does not include the indirect costs to operate the NDDB such as RCMP infrastructure support and maintenance.



DNA COORDINATORS—ROLES AND PARTNERSHIPS

The 47 DNA Coordinators across Canada are essential partners in the effective operations of the NDDB and its continuing success. They are police officers representing many jurisdictions, from municipal, provincial, and federal, to Department of National Defence military police. Coordinators follow up on collection issues to ensure that qualifying samples meet the NDDB's legal requirements. When biological samples are rejected by the NDDB, the DNA Coordinators offer assistance to police to ensure that the necessary steps are undertaken to obtain additional samples for inclusion in the NDDB. In some cases, coordinators work closely with Crown Prosecutors and Court Liaison Officers to ensure that orders for the collection of biological samples are made for convictions in accordance with the *Criminal Code*.

Most coordinators provide these services as part of their other duties, however in a few larger jurisdictions, it is a full-time position. The efforts of these individuals have strengthened the partnerships between police, the courts, and the NDDB. They are dedicated to ensuring that all partners receive the maximum benefit from the NDDB, and are often the link between the NDDB and police and the judiciary. Their attention to detail, and tireless work has resulted in an enhanced capacity to support police investigations.

After more than seven years as British Columbia's DNA Coordinator Jim Lucas is leaving his role in order to accept another position within the RCMP. The NDDB would like to acknowledge the outstanding contribution of RCMP Sergeant Jim Lucas, one of the original DNA Coordinators. His commitment to serving as a DNA Coordinator for the RCMP in British Columbia has resulted in a significant increase in additional samples submission following initial rejections by the NDDB.

The National **DNA** *Data Bank has proven to be an invaluable investigative tool for police working to resolve unsolved crime and provide closure for victims and their families. The Data Bank brings true meaning to the adage that "no criminal should take solace in the passage of time".*

Sgt. Jim Lucas

COURT ORDERED BIOLOGICAL SAMPLE LINKS SUSPECT TO PREVIOUS CRIME

On March 3, 2001, several men and a young woman attended a house party in Winnipeg. During the party, the men left to purchase more alcohol, leaving one man with the young woman. While the other men were gone, the man sexually assaulted the woman.

The suspect was well known to police because he had been convicted of robbery, uttering threats, and two counts of assault since coming to Canada in 1998. Following his arrest the police questioned the suspect and issued a warrant for a sample of his biological material in order to obtain a DNA profile for comparison to the crime scene evidence. Unfortunately, the suspect fled to Québec before the warrant could be executed.

In 2004, the suspect was ordered to provide a biological sample to the NDDB Convicted Offender Index as a result of his conviction for another crime. The resulting DNA profile matched the DNA profile obtained from a sample collected at the sexual assault crime scene in 2001. This allowed police to charge him with the sexual assault.

At the time, the suspect was already serving time in jail in Drummondville Québec for domestic assault. The subsequent conviction for the sexual assault resulted in an additional six-year sentence for the offender.

This case highlights the importance of a national DNA database system to facilitate solving crime across jurisdictions. The NDDB essentially enables police investigators to follow criminals and link their activities together across time and location.

SUCCESS STORY

DNA GIVES NEW LIFE TO AN UNSOLVED MURDER

On July 28, 2002, the body of a 23 year-old woman was discovered on Confederation Trail in Charlottetown, Prince Edward Island. Her body was found partially clothed, with her arms tied behind her back with leather straps. An autopsy revealed that she had been strangled until unconscious and then stabbed four times.

The day before her body was found, the woman had biked over to see her common-law husband at work. After visiting with him, she set out to visit her son at her mother's house, but never arrived.

Police were able to recover biological material from the leather straps used to tie the victim's arms. The RCMP Forensic Science and Identification Services derived a DNA profile from the material, which was entered into the NDDB Crime Scene Index.

For almost three years, the case remained dormant until April 2005, when a profile in the Convicted Offender Index matched the DNA found at the murder scene. The individual was already serving time in an Ontario jail for a sexual assault that had caused the judge to order the offender to submit a biological sample to the NDDB. The offender was subsequently charged with first degree murder in the Charlottetown case. The trial is ongoing.

In this case, the power of DNA lay silent in the NDDB, waiting for another DNA profile to be entered that would potentially answer the question of who committed the murder. Had the convicted offender not been ordered to submit a biological sample to the NDDB, the case could remain unsolved today.

DNA: FROM HOME INVASION TO HOMICIDE

In October 2005, four unidentified males, two wearing balaclavas, broke in and robbed a rural home in Leeds County, Ontario. As the suspects were leaving the house, a female occupant arrived home and was forced from her car at gun point by the men. The intruders made off with the car and various items from the home. The following day, the stolen car was found abandoned and torched.

In November 2005, a retailer in Kingston, Ontario contacted police after an individual made several purchases using what was identified as a credit card stolen from the home invasion. Police apprehended the individual and during questioning, he identified the three other men involved in the home invasion and robbery.

Following this, police stopped a vehicle identified as belonging to one of the suspects. After obtaining a search warrant, police found a balaclava and property from the home invasion. Biological material was extracted from the balaclava and the DNA profile generated by the Centre of Forensic Sciences was entered into the Crime Scene Index. In February 2006, a hit was made between the crime scene DNA and one of the other suspects in the crime, whose DNA was already in the Convicted Offender Index.

The case took an unexpected twist in March 2006, when a crime scene to crime scene match was made from the home invasion balaclava to a shirt from an unsolved homicide in Kingston. All four suspects in the home invasion were already persons of interest in the homicide, but no conclusive link between the suspects and the homicide had been made to date.

The four suspects were charged and subsequently convicted of the Leeds Country robbery and other related indictable offences. The outcome of the Kingston homicide is yet to be determined, but the DNA profiles from the robbery could assist in obtaining a conviction in this murder case.

There are no minor crimes for the **NDDB**. *There is a strong link between* **DNA** *from Break and Enters and more serious crime. The* **NDDB** *has noted that from all its offender hits, 12% to 15% of these are the result of a match between offenders convicted of secondary offences and investigations of primary offence cases. Entering DNA profiles from secondary offences often lead to breaks in solving more serious crime.*

APPENDIX A

PRIMARY OFFENCES

	Offence	Section
1	Approaching, entering, etc., a prohibited place	6 SIA*
2	Threats or violence	(20)(1) SIA*
3	Harboring or concealing	(21)(1) SIA*
4	Piratical acts	75
5	Hijacking	76
6	Endangering safety of aircraft or airport	77
7	Seizing control of ship or fixed platform	78.1
8	Using explosives	81(1)
9	Participation in activity of terrorist group	83.18
10	Facilitating terrorist activity	83.19
11	Commission of offence for terrorist group	83.2
12	Instructing to carry out activity for terrorist group	83.21
13	Instructing to carry out terrorist activity	83.22
14	Harboring or concealing (Terrorism)	83.23
15	Sexual interference	151
16	Invitation to sexual touching	152
17	Sexual exploitation	153
18	Incest	155
19	Offence in relation to juvenile prostitution	212(4)
20	Infanticide	233
21	Murder	235
22	Manslaughter	236
23	Causing bodily harm with intent	244
24	Assault with a weapon or causing bodily harm	267
25	Aggravated assault	268
26	Unlawfully causing bodily harm	269
27	Sexual assault	271
28	Sexual assault with a weapon, threats to a third party or causing bodily harm	272
29	Aggravated sexual assault	273
30	Kidnapping	279
31	Hostage taking	279.1
32	Attack on premises, residence or transport of internationally protected person	431
33	Attack on premises, accommodation or transport of United Nations or associated personnel	431.1
34	Explosive or other lethal device	431.2(2)
	As they read from time to time before January 4, 1983	
35	Rape	144
36	Sexual intercourse with female under fourteen and between fourteen and sixteen	146
37	Sexual intercourse with feeble-minded, etc.	148
	As it read from time to time before January 1, 1988	
38	Sexual intercourse with step-daughter, etc.	153.1(a)

*SIA: Security of Information Act

Note: An attempt to commit or, other than for the purposes of subsection 487.05(1), a conspiracy to commit any of the offences mentioned in the above list is also considered a primary designated offence.

APPENDIX B

SECONDARY OFFENCES

	Offence	Section
1	Bestiality in the presence of or by child	160(3)
2	Child pornography	163.1
3	Parent or guardian procuring sexual activity	170
4	Indecent acts	173
5	Causing death by criminal negligence	220
6	Causing bodily harm by criminal negligence	221
7	Dangerous operation causing bodily harm	249(3)
8	Dangerous operation causing death	249(4)
9	Failure to stop at scene of accident	252
10	Impaired driving causing bodily harm	255(2)
11	Impaired driving causing death	255(3)
12	Assault	266
13	Torture	269.1
14	Assaulting a peace officer	270(1) (a)
15	Robbery	344
16	Breaking and entering with intent, committing offence or breaking out	348(1)
17	Mischief that causes actual danger to life	430(2)
18	Arson—Disregard for human life	433
19	Arson—Own property	434.1
	As they read from time to time before July 1, 1990	
20	Arson	433
21	Setting fire to other substance	434

Note: An attempt to commit or, other than for the purposes of subsection 487.05(1), a conspiracy to commit any of the offences mentioned in the above list is also considered a secondary designated offence.